

### **Abstract**

#### **Telecommunication Device with analog Fourier Transformation Unit**

An OFDM telecommunication device, i. e. a receiver, transmitter or transceiver for OFDM- (Orthogonal Frequency-Division Multiplex) signals that generally employs the Inverse Fourier Transformation (IFT) technique to encode and transmit time-division multiplex signals and the Fourier Transformation (FT) technique to decode the received signals into time-division multiplex signals comprises a transformation unit (2) that incorporates at least an analog multiplication step and at least an analog convolution step of a multiplication convolution multiplication algorithm or a convolution multiplication convolution signal to perform a fourier transformation for demodulation and/or an inverse fourier transformation for modulation into the analog stage of said OFDM telecommunication device.

(Fig. 1)

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